

DX-Required and Recommended fields and Clinician list

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1. Introduction:

This document will need to be completed by a person familiar with HL7 2.5.1 and your EHR system. Review the latest NCIR LIG and then, complete the information requested below. The purpose of this document is to identify the changes needed to your EHR system to meet the NCIR specifications.

Pre-requisite:

A. You will need a baseline VXU/ACK and QBP/RSP HL7 2.5.1 message from your EHR to complete this document.

B. Prior to completing this document, review the NCIR specs (VXU/ACK and QBP/RSP LIG).

| | Version | Available versions |
|---------------------------|---------|---|
| EHR Certification Version | | 2015 Edition Final Rule 2014 Edition Release 2 2014 Edition 2011 Edition |

2. VXU - EHR Survey of Required and Optional fields

2.2 Message Header Segment

| Data Element Name [VXU and QBP field location] | Does your EHR currently send this data as part of an HL7 message? (Yes or No) | Meets NCIR specifications? (Yes or No) If No, what changes are needed to meet NCIR VXU/ACK specs: | Notes |
|---|--|--|--|
| Organization Fields: | | | |
| Encoding Characters VXU: MSH-2 ^~\& | | | |
| Sending Application VXU: MSH-3 | | | |
| Sending Facility VXU: MSH-4 | | | NCIR will provide this value during onboarding |
| Receiving Facility VXU: MSH-6 | | | |
| Date/Time Of Message VXU: MSH-7 | | | |

| | | | |
|--|--|--|--|
| Message Type VXU: MSH-9 VXU^V04^VXU_V04 | | | |
| Message Control ID VXU: MSH-10 | | | |
| Processing ID VXU: MSH-11 Value is P | | | |
| Version ID VXU: MSH-12 2.5.1 | | | |
| Accept Acknowledgment Type VXU: MSH-15 | | | |

2.3 Client

| Data Element Name [VXU field location] | | Does your EHR collect this data? (Yes or No) | Is this required Field in your EHR? (Yes or No) | Do you send this data as part of HL7 transactions? (Yes or No) | Meets NCIR specifications? (Yes or No) If No, what changes are needed to meet NCIR VXU/ACK specs: | Notes |
|---|--|---|--|---|---|---|
| Organization Fields: | | | | | | |
| Chart Number or Organization identifier for client. VXU: PID-3 – Use PI | | | | | | The value sent here must be the value providers enter in the chart # field of the NCIR. Check what your organization currently uses in chart # field of the NCIR UI and use that. This can be MRN# if that is the number your users are currently entering in the NCIR chart # field. |
| Patient Name VXU: PID-5 | Last, First and Middle Name PID-5.1-3 | | | | | |
| | Name type code PID-5.7 “L” for Legal. | N/A | | | | |
| Mother's Maiden Last and First Name VXU: PID-6 | | | | | | |

| | | | | | | |
|--|--|-----|-----|--|--|------------------------------|
| Date of birth VXU: PID-7 | | | | | | |
| Gender VXU: PID-8 | | | | | | |
| Race VXU: PID-10 | | | | | | |
| Patient Address VXU: PID-11 | Street address PID-11. | | | | | |
| | City PID-11. | | | | | |
| | State PID-11.4 | | | | | |
| | County PID-11.9 | | | | | Used as county of residence. |
| | Zip code PID-11.5 | | | | | |
| | Address type PID-11.7 Use "M" | N/A | N/A | | | |
| Patient Phone Number VXU: PID-13 | Telecom use code PID-13.2 Use "PRN" | N/A | N/A | | | |
| | Area code PID-13.6 | | | | | |
| | Local number PID13.7 | | | | | |
| Ethnic group VXU: PID-22 | | | | | | |
| Multiple birth indicator VXU: PID-24 | | | | | | |
| Multiple birth order VXU: PID-25 | | | | | | |
| Death date VXU: PID-29 | | | | | | |
| Death indicator VXU: PID-30 | | | | | | |
| Immunization Registry status VXU: PD1-16 Active, Inactive, Permanently deceased | | | | | | |

2.3.2 Responsible Person

| Responsible Person Fields: Note: Responsible person is sent in VXU and not in QBP. | | Does your EHR collect this data? (Yes or No) | Is this required Field in your EHR? (Yes or No) | Do you send this data as part of HL7 transactions ? (Yes or No) | Meets NCIR specifications? (Yes or No) If no, what changes are needed to meet NCIR VXU/ACK specs: | Notes NCIR will need at least one responsible person per client for ages less than 19 years. For over 19 years, address/phone need to be in either in PID-11/13 or NK1. (Refer to NCIR LIG for details.) |
|---|--|--|---|---|--|---|
| Set ID – NK1 VXU: NK1-1 | | N/A | N/A | | | |
| Responsible person First and Last Name VXU: NK1-2 | Last, First and Middle Name NK1-2.1-3 | | | | | |
| | Name type NK1-2.7 | | | | | |
| Relationship to client VXU: NK1-3 | | | | | | |
| Responsible person's phone number VXU: NK1-5 | Telecom use code NK1-5.1 Use "PRN" | N/A | N/A | | | |
| | Area code NK1-5.5 | | | | | |
| | Local number NK1-5.6 | | | | | |
| Responsible person's address VXU: NK1-4 | Street address | | | | | |
| | City | | | | | |
| | State | | | | | |
| | County | | | | | |
| | Zip code | | | | | |
| | Address type Use "M" | N/A | N/A | | | |
| Responsible person's primary language VXU: NK1-20 | | | | | | |
| Responsible person accepts rem/recall notices or not VXU: NK1-22 | | | | | | Referred to as notices in the NCIR UI. |

2.3.3 Client comments

| Client Comments | Does your EHR collect this data? (Yes or No) | Is this required Field in your EHR? (Yes or No) | Do you send this data as part of HL7 transactions? (Yes or No) | Meets NCIR specifications? (Yes or No) If No, what changes are needed to meet NCIR VXU/ACK specs: | Notes Client comments are vaccine deferrals due to a reason. For ex. Allergy to Gelatin. |
|---|--|---|--|--|---|
| Set ID-OBX-1 VXU: OBX-1 | N/A | N/A | | | |
| Value Type VXU: OBX-2 | N/A | N/A | | | |
| Client Comment VXU: OBX-3 and OBX-5 | | | | | List of Client comments are in the LIG appendix. |
| Applies-To Date VXU: OBX-14 | | | | | |

2.4 Immunization Information Survey of required/optional fields:

Owned dose – Owned dose is dose administered by your organization. This can be state supplied vaccine or privately purchased vaccine.

Historical dose – Historical dose is dose that you recorded in the EHR that was administered by another organization.

Note: Refusals are sent as RXA's and refer to VXU LIG under RXA-18 for examples for refusals.

2.4.2 Owned Doses and refusals:

| Owned Doses Immunization Fields: | | Does your EHR collect this data for owned dose? (Yes or No) | Is this required Field in your EHR for Owned Dose? (Yes or No) | Does your EHR send this field to NCIR as part of Data Exchange? (Yes or No) | Meets NCIR specifications? (Yes or No) If no, what changes are needed to meet NCIR VXU/ACK specs: | Notes |
|--|---|---|--|---|--|-------|
| Dose date VXU: RXA-3 | | | | | | |
| Administered code VXU: RXA-5 Requires both CVX and Trade name | CVX Code (RXA-5, First Triplet) | | | | | |
| | NCIR Tradename Code (RXA-5, Second Triplet) | | | | | |
| Administered Amount | Dose VXU: RXA-6 | | | | | |

| | | | | | | |
|---|----------------------|-----|--|-----|--|--|
| | Unit RXA-7 | | | | | |
| Administered notes VXU: RXA-9 | | | | | | |
| Administering provider or clinician VXU: RXA-10 | | | | | | |
| Ordering Provider VXU: ORC-12 | | | | | | |
| Administering location VXU: RXA-11 | | | | | | |
| Lot Number VXU: RXA-15 | | | | | | |
| Expiration Date VXU: RXA-16 | | | | | | |
| Manufacturer Name VXU: RXA-17 | | | | | | |
| Action Code-RXA VXU: RXA-21 | | | | | | |
| Route of administration VXU: RXR-1 | | | | | | |
| Administration (body) Site VXU: RXR-2 | | | | | | |
| Eligibility Code VXU: OBX-3/OBX-5 | | | | | | |
| Observation Method VXU: OBX-17 If 64994-7, then VXC41 or VXC40. | | | | | | |
| Funding code VXU: OBX-3/OBX-5 | | | | | | |
| VIS presented date VXU: OBX-3/OBX-5 | | | | | | |
| VIS published date VXU: OBX-3/OBX-5 | | | | | | |
| Date/Time Observation VXU: OBX-14 | | | | | | |
| Order Control VXU: ORC-1 Use "RE" | | | | | | |
| Filler Order Number VXU: ORC-3 | | | | | | |
| Give Sub-ID Counter VXU: RXA-1 | | N/A | | N/A | | |
| Administration Sub-ID Counter VXU: RXA-2 | | N/A | | N/A | | |
| Substance/treatment Refusal Reason VXU: RXA-18 | | | | | | If completion status is RE, then this shall be populated |
| Completion Status VXU: RXA-20 Populated with: PA, CP, RE, NA or DE. Use CP for completed; RE for refusal | | | | | | |
| Action Code VXU: RXA-21 | | | | | | |

2.4.3 Historical Dose:

| Historical Dose Immunization Fields: | | Does your EHR collect this data for Historical dose? (Yes or No) | Does your EHR send this field to NCIR as part of Data Exchange? (Yes or No) | Is this required Field in your EHR for historical Dose? (Yes or No) | Meets NCIR specifications? (Yes or No) If no, what changes are needed to meet NCIR VXU/ACK specs: | Notes |
|---|--|--|---|---|--|---|
| Dose date VXU: RXA-3 | | | | | | |
| Administered code VXU: RXA-5 CVX code sufficient for historical | CVX Code (RXA-5, First Triplet) | | | | | |
| | CPT/ NCIR Tradename Code/VGC (RXA-5, Second Triplet) | | | | | |
| Administered Amount (Dosage and unit) VXU: RXA-6 (dose), RXA-7 (unit) | | | | | | |
| Administered notes VXU: RXA-9 | | | | | | |
| Administering provider or clinician VXU: RXA-10 | | | | | | |
| Ordering Provider VXU: ORC-12 | | | | | | |
| Administering location VXU: RXA-11 | | | | | | Note: Needed field for historical dose. |
| Lot Number VXU: RXA-15 | | | | | | |
| Expiration Date VXU: RXA-16 | | | | | | |
| Manufacturer Name VXU: RXA-17 | | | | | | |
| Route of administration VXU: RXR-1 | | | | | | |
| Administration (body) Site VXU: RXR-2 | | | | | | |
| Eligibility Code VXU: OBX-3 | | | | | | |
| Funding code VXU: OBX-3 | | | | | | |
| VIS presented date VXU: OBX-3 | | | | | | |
| VIS published date VXU: OBX-3 | | | | | | |

2.5 List your administering clinician and ordering provider

Note: NCIR will use the address of organization to complete the address of the clinician and ordering authority in the NCIR. If a different address is needed, just specify.

Add additional rows as needed if you have more than three clinicians and ordering authority.

| | First Name | Middle Name | Last Name | Credentials | Email address | Address | Phone Number |
|--------------------------------|------------|-------------|-----------|-------------|---------------|---------|--------------|
| Administering Clinician Name 1 | | | | | | | |
| Ordering Provider 1 | | | | | | | |
| Administering Clinician Name 2 | | | | | | | |
| Ordering Provider 2 | | | | | | | |
| Administering Clinician Name 3 | | | | | | | |
| Ordering Provider 3 | | | | | | | |

Fax to 919 870-4824 or email to ncirdataexchange@dhhs.nc.gov

Note:

Credentials for **Administering Clinician** are listed below:

- 1) Certified Medical Assistant
- 2) Certified Nurse Midwife
- 3) Certified Nurse's Assistant
- 4) Doctor of Medicine
- 5) Doctor of Osteopathy
- 6) Licensed Practical Nurse
- 7) Medical Assistant
- 8) Nurse Practitioner
- 9) Registered Nurse
- 10) Registered Pharmacist
- 11) Physician's Assistant
- 12) Other

Credentials for **Ordering Clinician** are listed below:

- 1) Doctor of Medicine
- 2) Doctor of Osteopathy
- 3) Nurse Practitioner
- 4) Physician's Assistant

2.6 Consumption of Acknowledgement returned

2.6.2 Error Field Definitions

| Data Elements: | Do you use this field from response in the EHR? (Yes or No) | Notes |
|---|--|-------|
| Error Location VXU: ERR-2 | | |
| HL7 Code VXU: ERR-3 | | |
| Severity VXU: ERR-4 | | |
| Application Error Code VXU: ERR-5 | | |
| User Message VXU: ERR-8 | | |

2.6.3 MSA segment

| Data Elements: | Do you use this field from response in the EHR? (Yes or No) | Notes |
|--|--|-------|
| Acknowledgment Code VXU: MSA-1 | | |
| Message Control ID VXU: MSA-2 | | |

2.7 Questions for VXU

1. How do you handle Error/warnings returned from the NCIR in response to VXU? Does the user have the ability to view the acknowledgment in real time or as needed after administration and recording of a dose?

2. What information do you send in the PID-3 field? Does that field contain the same value that is currently entered in the NCIR chart # field?

2.7.3 Provide HL7 example

Provide an example of your HL7 code (including an example of historical and administered dose):

3. QBP and RSP

3.2 MSH – Message Header Segment

| Data Element Name [VXU and QBP field location] | Do you send this data as part of HL7 transactions? (Yes or No) | Meets NCIR specifications? (Yes or No) If no, what changes are needed to meet NCIR QBP/RSP specs: | Notes |
|---|---|--|--|
| Organization Fields: | | | |
| Sending Application MSH-3 | | | |
| Sending Facility MSH-4 | | | NCIR will provide value at the time of onboarding. |
| Receiving Facility MSH-6 | | | |
| Date/Time of message MSH-7 | | | |
| Message Type MSH-9 QBP^Q11^QBP_Q11 | | | |
| Message Control ID MSH-10 | | | |
| Processing ID MSH-11 Use "P" | | | |
| Version ID MSH-12 Use 2.5.1 | | | |

| | | | |
|--|--|--|--|
| Accept Acknowledgement Type MSH-15 | | | |
| Message Profiler Identifier MSH-21 Inbound: Z34^CDCPHINVS Z32^CDCPHINVS (an exact match was found) Z33^CDCPHINVS (no candidate was found) Z31^CDCPHINVS (multiple candidate list). | | | |

3.3 QPD Segment:

| Data Element Name [VXU and QBP field location] | | Does your EHR collect this data? (Yes or No) | Is this required Field in your EHR? (Yes or No) | Do you send this data as part of HL7 transactions? (Yes or No) | Meets NCIR specifications ? (Yes or No) If no, what changes are needed to meet NCIR QBP/RSP specs: | Notes |
|--|---|---|--|---|---|--|
| Organization Fields: | | | | | | Refer to LIG for details and example. HL7 field locations are listed here for convenience only. |
| NCIR Client id QBP: QPD-3 (SR) | | N/A | N/A | N/A | | Not applicable for incoming transaction. FYI - NCIR sends NCIR client id in RSP response and can store and re-send. |
| Chart Number or Organization identifier for client. QBP:QPD-3 – Use PI | | | | | | Send what the providers currently enter in the chart # field of the NCIR if available. |
| Patient Name QBP: QPD-4 | Last, First and Middle Name QPD-4.1-3 | | | | | |
| | Name type code QPD-4.7 Use "L" for legal | | | | | |

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
| Mother's Maiden Last and First Name QBP: QPD-5 | | | | | | |
| Date of birth QBP: QPD-6 | | | | | | |
| Gender QBP: QPD-7 | | | | | | |
| Patient Address QPD: QPD-8 | Street address QPD-8. | | | | | |
| | City QPD-8. | | | | | |
| | State QPD-.4 | | | | | |
| | County QPD-8.9 | | | | | |
| | Zip code QPD-8.5 | | | | | |
| | Address type QPD-8.7 Use "M" for mailing. | | | | | |
| Patient Phone Number QPD: QPD-9 | Telecom use code QPD-9.2 Use "PRN" | | | | | |
| | Area code QPD-9.6 | | | | | |
| | Local number QPD9.7 | | | | | |
| Multiple birth indicator QPD: QPD-10 | | | | | | |
| Multiple birth order QPD: QPD-11 | | | | | | |

3.4 RCP – Response Control Parameter Segment (QBP only)

| Data Element Name [VXU and QBP field location] | Does your EHR collect this data? (Yes or No) | Is this required Field in your EHR? (Yes or No) | Do you send this data as part of HL7 transactions? (Yes or No) | Meets NCIR specifications? (Yes or No) If no, what changes are needed to meet NCIR specs: | Notes |
|--|---|--|---|---|-------|
| Organization Fields: | | | | | |
| Query Priority RCP-1 Empty or 1 | | | | | |
| Quantity Limited Request RCP-2 First component is count, second component is "RD" for records | | | | | |
| Response Modality RCP-3 | | | | | |

3.4.1 List the fields that your EHR consumes and displays from the RSP response returned by the NCIR?

3.4.2 QBP RSP Segment – No match

| Data Element Name [RSP field location] | Does your EHR absorb or use this information from RSP? (Yes or No) | Is this data displayed to the user? (Yes or No) |
|---|---|--|
| Organization Fields: | | |
| Acknowledgment Code RSP:MSA-1 | | |
| Message Control ID RSP:MSA-2 | | |
| Message Profile Identifier RSP-MSH-21 | | |
| Acknowledgement RSP:QAK-2 | | |
| Error location RSP:ERR-2 | | |
| Severity RSP:ERR-4 | | |
| Application Error Code RSP:ERR-5 | | |
| User Message RSP:ERR8 | | |

3.4.3 QBP RSP Segment – Multi match

| Data Element Name [RSP field location] | Does your EHR absorb or use this information from RSP? (Yes or No) | Is this data displayed to the user? (Yes or No) |
|---|---|--|
| Organization Fields: | | |
| Acknowledgment Code RSP:MSA-1 | | |
| Message Control ID RSP:MSA-2 | | |
| Query Tag RSP:QAK-1 | | |
| Query Response Status RSP:QAK-2 | | |
| Message Profile Identifier RSP:MSH-21 | | |
| Error location RSP:ERR-2 | | |
| Severity RSP:ERR-4 | | |
| Application Error Code RSP:ERR-5 | | |
| User Message RSP:ERR8 | | |
| Multiple PID segments | | |
| Multiple corresponding NK1 segments | | |

3.4.4 QBP RSP Segment – Exact Match

| Data Element Name [RSP field location] | | Does your EHR absorb or use this information from RSP? (Yes or No) | Is this data displayed to the user? (Yes or No) |
|---|---|---|---|
| Organization Fields: | | | |
| Acknowledgment Code RSP:MSA-1 | | | |
| Message Control ID RSP:MSA-2 | | | |
| Query Tag RSP:QAK-1 | | | |
| Query Response Status RSP:QAK-2 | | | |
| Message Profile Identifier RSP:MSH-21 | | | |
| Query parameter definition RSP:QPD segment | | | |
| Patient Identifier (exact) RSP: PID Segment | | | |
| Responsible person First and Last Name RSP: NK1-2 | Last, First and Middle Name NK1-2.1-3 | | Is Responsible person information returned in the RSP displayed to the end user? |
| | Name type NK1-2.7 | | |
| Order Control RSP:ORC-1 | | | |
| Filler Order Number RSP:ORC-3 | | | |
| Ordering Provider RSP:ORC-12 | | | |
| Dose date RSP:RXA-3 | | | |
| Administered code RSP: RXA-5 | CVX Code RSP: RXA-5(First Triplet) | | |
| Administered Amount | Dose RSP:RXA-6 | | |
| | Unit RSP:RXA-7 | | |
| Administered notes RSP:RXA-9 | | | |
| Administering provider or clinician RSP:RXA-10 | | | |
| Administering location RSP:RXA-11 | | | |
| Lot Number RSP:RXA-15 | | | |
| Expiration Date RSP:RXA-16 | | | |
| Manufacturer Name RSP:RXA-17 | | | |

| | | |
|---|--|--|
| Substance/treatment Refusal Reason RSP:RXA-18 | | |
| Completion Status RSP:RXA-20 | | |
| Error location RSP:ERR-2 | | |
| Severity RSP:ERR-4 | | |
| Application Error Code RSP:ERR-5 | | |
| User Message RSP:ERR8 | | |
| VIS Presented Date RSP:OBX-5 | | |
| VIS Published Date RSP:OBX-5 | | |
| Funding Code RSP:OBX-5 | | |
| Eligibility Code RSP:OBX-5 | | |
| Vaccine recommendation fields listed below: | | |
| Vaccine due next RSP:OBX-5 | | |
| Date vaccine due RSP:OBX-5 | | |
| Vaccine due next dose RSP:OBX-5 | | |
| Earliest date to give RSP:OBX-5 | | |

3.5 Questions for QBP and RSP

1. How does your organization store, or use, immunization history returned from the NCIR?

2. How do you use recommendations from the NCIR returned as part of RSP?

3. How do you handle multiple responses (more than one client returned) from the NCIR?

4. Please provide a HL7 2.5.1 example of QBP from your EHR:

4.0 Timeline for modification needed to meet NCIR LIG:

1. Availability of VXU/ACK modifications:

2. Availability of QBP/RSP modifications

Appendix I: List of Immunization Data Elements expected by the NCIR for each type of dose

Note: This table is provided for information purposes. No action needed in this page.

| Data elements | Owned dose | Historical dose |
|--|--|---|
| Dose date | Required | Required |
| Administered code | Required CVX and NCIR Trade Name code Value in First and Second triplet must correspond to each other | Required CVX and/or (CPT or Trade Name) For Historical, second code (CPT or Trade Name) is optional. If both provided, two must correspond to each other. |
| Administered Amount (Dosage and unit) | Required | No. |
| Administered notes | Required 00 (for owned dose or administered by the organization) | Required 01 (for historical dose) |
| Administering provider or clinician | Required Set up list of clinicians in the NCIR and obtain a list with names to use. | No. |
| Ordering Provider | Required Set up list of ordering providers in the NCIR and obtain a list with names to use. | No. |
| Administering location | Required Name of Site and Site Id from NCIR. Obtain list of sites from NCIR using Manage Site screen. | Free text location. |
| Lot Number | Required | Optional |
| Expiration Date | Required | No. |
| Manufacturer Name | Required | No. |
| Route of administration | Required | No. |
| Administration (body) Site | Required | No. |
| Eligibility Code | Required Only for State supplied Owned doses. Does not apply for privately purchased doses administered by an organization. | No. |
| Funding code | Required Only for state supplied doses if decrementing inventory functionality is used. | No. |
| VIS presented date | Required | No |
| VIS published date | Required | No |